En Route Congestion - Benefits

The performance of the NAS depends upon the balance between capacity and demand and the geographic distribution of any imbalances. By 2010, there will be 700 to 800 more flights in the air at a given time during normal operating hours, about a 30% increase from today. En route capacity affects NAS performance through limits on traffic flows between airports. The key driver for en route capacity is the ability of the controller to direct aircraft, when needed, by vectoring traffic, changing altitudes or exercising speed control. The targeted improvements for en route airspace provide substantial reductions in interactions between flights and in communications workload, thus reducing the number of controller-to-pilot directives. Projections show airspace redesign, reduced vertical separation, RNAV routes and en route automation aids provide a 30 to 40 percent reduction in the number of interactions. The reduced number of interactions and ability of the controller to plan more strategic maneuvers through conflict prediction tools allow restrictions to be removed and lessen the impact when controllers must intervene to resolve a conflict. The savings in operating costs observed to date as part of the Free Flight program are about $18 million per year. The time savings would be about 1.8 million minutes per year based on the expansion of capabilities defined in this plan.